



# **Brightness and Color spectrophotometer**

ColorTouch® X ISO

Since 1980 Technidyne has been producing instruments that meet the ISO Optical Standards for the global pulp and paper industry. In 1994 Techindyne brought to market the ColorTouch<sup>®</sup>, which quickly set the standard for functionality, precision and dependability.

The ColorTouch<sup>®</sup> X brings together a powerful set of tools to meet the demands of the brightness, color, fluorescence and ERIC950<sup>®</sup> markets. In addition to these traditional applications, the expanded wavelength range of the ColorTouch<sup>®</sup> X provides a higher level of accuracy and capabilities.

No other instrument in the market today can match the ColorTouch<sup>®</sup> X for capabilities, functionality and quality.

RIAL

Protecting Product Integrity

#### **Features**

- Expanded Wavelength Range Provides improved analysis of UV region
- New Intuitive Operator Interface Simple and responsive
- Data Trending Trend data over time, grade run, shifts, etc.
- Simultaneous Grade Tracking Track multiple grades from different sources at the same time
- Pass/Fail Alerts Immediate notification of out of spec measurements
- APP Technology Provides the foundation for adding new features as they become available or the development of custom APPS for your specific measurement or calculation
- Touch-Screen Interface
- Data Export in CSV and XML via Ethernet or USB
- FTP server connection capability
- Support w/embedded TeamViewer
- Automated Calibration w/Internal "working" standard
- APP Technology built-in for adding new features
- Exact conformance to ISO standards





#### **Touchscreen Operation**

- Point & Touch and the ColorTouch<sup>®</sup> X does the rest
- Preprogrammed test routines to allow for easy setup and testing
- Does not require an external PC
- Automated calibration routine
- Internal working standard unmatched in the industry

#### **Advanced Data Analysis**

- Trending data allows for tracking grades over several samples
- · Compare multiple samples on various color plots
- Establish optical tolerances on grades for PASS/FAIL analysis

#### **Spectral Data Capabilities**

- Spectrophotometric data for comprehensive understanding of dyes, fillers and other colorants
- Greater accuracy of colorimetric data
- Thorough analysis of metameric color matches

#### **Contact Details**

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### **Technical Specification**

| Industry Standardization         |  | Repeatability                        | < 0.01 CIELAB DE  |
|----------------------------------|--|--------------------------------------|---|
| Paper/Tissue/Board               |  | (white tile avg. 20 readings         | 3)  |
| ISO Standards                    | 2469, 2470, 2471, 11475,<br>11476, 12625, 5631, 3688   | Reproducibility<br>(interinstrument) | <0.20 CIELAB DE   |
| TAPPI Standards                  | T519, T525, T527, T534,<br>T560, T567 (Optional)   | Automated Calibration<br>(Quick Cal) | Yes (Internal Working<br>Standard)  |
| Sample Types                     | Letter, A4 Sheets, Sheeted<br>Materials, Handsheets,<br>Tissue, Towels, Powder/<br>Minerals (pressed pellet) | Automated Calibration<br>(Primary)   | **Yes (Auto Data Entry<br>via USB) (** When using<br>Technidyne Laboratory<br>Calibration Standards)  |
| Sample Thickness Range           | 0 to 50,000µm  | Display                              | 10.1 Color TFT 1024 x 600   |
| Geometry                         | Dual Beam d/0°   |                                      | Screen  |
| Specimen Area Measured           | 28+/-3mm   | Hard Disk Drive                      | 32GB Sata SSD   |
| Specimen Aperture                | 34+/-0.5mm   | Measurement Time                     | 4 to 10 seconds<br>(measurement dependent)  |
| Light Source                     | Pulsed Xenon   |                                      |   |
| Lamp Life<br>(# of measurements) | 500,000  | Measurement Results                  | Brightness<br>Opacity<br>Whiteness (CIE, Hunter,<br>ASTM)<br>Yellowness (Hunter)<br>Tint (CIE, Hunter)<br>Color (XYZ/Rx,Ry,Rz/<br>L,a,b/L*,a*,b*/L*,C*,h/<br>DWL,PUR,x,y,Y)<br>Color Difference<br>Fluorescence |
| Detector                         | CCD 131,000 Pixels   |                                      |   |
| Spectrometer                     | Dual Blaze grating   |                                      |   |
| Spectrometer Range               | 200 to 1050nm  |                                      |   |
| Bandpass                         | 5nm  |                                      |   |
| Calibration                      | Traceable to NRC   |                                      |   |
| Measurement Range                | 0-200% (Reflectance)   |                                      |   |
| UV Sources                       | D65, C, UV-EX, *UV1, *UV2<br>(* User Defined)  |                                      | Metamarism<br>Spectral Data -Wavelengths  |
| Automatic UV Control             | Auto-adjustment to<br>calibrated UV sources  |                                      | 360 to 780nm<br>Residual Ink - ERIC 950nm<br>(Optional)   |
| UV Filters                       | UV Trim 395nm / UV Cut-<br>off 420nm   |                                      |   |
| Observers                        | CIE 2°, 10°  |                                      |   |
| Illuminants                      | C, D65, A, B, D50, D55, D75,<br>F2, F7,F11   | <b>Contact Details</b>               |   |

Photometric Nonlinearity 0.10%

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| <b>Reflectance Intervals</b>       | 1nm, 5nm, 10nm, 20nm  |
|------------------------------------|---|
| Statistics                         | Average<br>Maximum Test Value<br>Minimum Test Value<br>Standard Deviation<br>Trending<br>Grade Tracking   |
| Data Views                         | Tabular<br>Color Space Plots<br>Spectral Curves   |
| Pass/Fail Alerts                   | Yes (User Defined<br>Specifications)  |
| Stored Standards                   | Yes   |
| Data Communications<br>/Ports      | XML,CSV,Serial /USB<br>(4), Ethernet<br>FTP Server Connection<br>Capability   |
| Automeasures                       | Yes (User Defined<br>Measurement Sequences)   |
| Remote Support                     | Yes - via Embedded<br>Teamviewer  |
| User Interface                     | Embedded software w/<br>Touch, Scroll & Swipe   |
| Available APPS<br>(Optional)       | ERIC 950° - Residual Ink<br>Concentration<br>Predicted Opacity (Abs<br>Power & Coeff)<br>Specific Calibration<br>(Simulate TAPPI Data)<br>Correlation (Align Data with<br>Legacy Devices) |
| Printer (Optional)                 | Optional USB Printer (Small<br>Form factor thermal printer)   |
| Recommended<br>Operating Temp.     | 10-32° Celsius (50-90° F)   |
| Power Consumption                  | 200 watt max / 80 watts passive   |
| Voltage / Frequency<br>Requirement | 100 - 250VAC / 48-61 Hz   |
|                                    |   |

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## Weights & Dimensions

| Depth  | 40cm (15.75in)  |
|--------|-----------------|
| Width  | 33.5cm (13.2in) |
| Height | 60cm (23.5in)   |
| Weight | 20.4kg (45lbs)  |
|        |                 |

Country of Origin

U.S.A.

**Contact Details** 

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